



**Local Agency
Formation Commission**
LAFCO of Napa County

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AUGUST 12, 2004
AGENDA ITEM NO. 9b

August 4, 2004

TO: Local Agency Formation Commission

FROM: Daniel Schwarz, Executive Officer
Keene Simonds, Staff Analyst

SUBJECT: Comprehensive Water Service Study: Draft Service Review Determinations
Lake Berryessa Resort Improvement District
Napa-Berryessa Resort Improvement District
Spanish Flat Resort Improvement District

At its April 10, 2003 meeting, the Commission received a presentation by staff providing an overview of the first phase of the *Comprehensive Water Service Study*. Following this presentation, the study was released for public review and a public workshop was conducted by the Commission at its June 12, 2003 meeting. At the conclusion of the public workshop, the Commission directed staff to proceed with the next phase of the study: the development of draft determinations. Since this time, staff has presented draft determinations along with updated study sections for 10 of the 13 public agencies included in the study. These agencies are:

- ? City of American Canyon
- ? City of Calistoga
- ? City of Napa
- ? City of St. Helena
- ? Town of Yountville
- ? Circle Oaks County Water District
- ? Congress Valley Water District
- ? Los Carneros Water District
- ? Napa County Flood Control and Water Conservation District
- ? Napa Sanitation District

In a continuation of this process, staff has prepared draft determinations along with updated study sections for the remaining three agencies included in the study. These agencies are the Lake Berryessa Resort Improvement District, Napa-Berryessa Resort Improvement District, and the Spanish Flat Water District. These draft determinations are included with updated study sections for each agency and are presented to the Commission for its consideration pursuant to Government Code §56430. Staff is presenting these draft determinations to the Commission for a first-reading. These draft determinations will then be circulated for comment to each agency and interested parties. Final determinations will be presented for adoption at the Commission's October 14, 2004 meeting.

Harry Martin, Chair
Councilmember, City of Napa

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Supervisor, 5th District

Guy Kay, Commissioner
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Bill Dodd, Alt. Commissioner
Supervisor, 4th District

Daniel Schwarz
Executive Officer

It is important to note that a common determination proposed for all three agencies under the “Governance Structure Options” section is that a governance study should be conducted to determine whether any reorganization options would benefit the residents of the area. Notably, the study should evaluate whether reorganization of all three agencies would establish economies of scale necessary to enhance service levels within their respective jurisdictional boundaries and help to formalize service provision in the Lake Berryessa area. The study should be completed prior to the next scheduled service review of each agency.

SPANISH FLAT WATER DISTRICT

OVERVIEW

The Spanish Flat Water District (SFWD) was established in 1963 to provide potable water and sewer services to the “Spanish Flat” area along the western shoreline of Lake Berryessa. At the time of its formation, it was anticipated that the District’s approximate 673-acre service area would develop into a comprehensive residential and recreational community. Local property owners petitioned for the formation of the District to help facilitate the development of this community. Notable plans for the community included the development of a 53-lot residential subdivision to be known as the “Spanish Flat Woodlands.” Other areas within the District’s service area included a small number of existing residences, a commercial center, a mobile home court, and a public cemetery.

In 1964, SFWD issued general obligation bonds to finance the purchase of a water system owned by the Spanish Flat Mutual Water Company. The Spanish Flat Mutual Water Company, which was incorporated in 1961, had been the previous water service provider for the area. Facilities purchased by the District included an intake system to Lake Berryessa, a filtration plant, storage facilities, and a distribution system. Revenue generated from the sale of general obligation bonds was also used to make improvements to the existing water system along with extending the distribution system to serve the Spanish Flat Woodlands subdivision.¹ Later that year, the District secured an annual water entitlement to Lake Berryessa following an agreement with the Napa County Flood Control and Water Conservation District. Renewed in 1999, the agreement provides the District with an annual entitlement of 200 acre-feet of water from Lake Berryessa through 2024.

As a result of three annexations, between 1965 and 1977, SFWD more than doubled the size of its original service area. In 1965, the District annexed approximately 170 acres of non-contiguous territory near the Rancho Monticello Resort. The annexation of this territory was intended to facilitate the development of a 160-acre residential subdivision, with the remaining 10 acres to be used for commercial uses. However, three years after annexation, the Napa County Board of Supervisors amended the territory’s zoning standard as part of a countywide agricultural preserve act. As a result of the new zoning standard (Agricultural Watershed), development of the territory was not pursued.

In 1976, SFWD annexed the Spanish Flat Resort. The approximate 225-acre resort, along with six other resorts, was developed in the late 1950s following an agreement with the County of Napa to provide recreational and commercial services to the public at Lake Berryessa. Administrative duties concerning recreational development at Lake Berryessa were later assumed by the United States Department of the Interior, Bureau of Reclamation, in 1975. During this time, the resort’s water treatment facilities had proven inadequate to meet growing system demands. To this end, the resort sought and reached

¹ Revenue generated from the sale of general obligation bonds was also used to purchase sewer facilities owned by the Spanish Flat Resort, Inc., the previous sewer provider for the area.

agreement to connect to the District's distribution system for the purpose of receiving potable water supplies.²

In 1977, SFWD annexed a non-contiguous residential subdivision north of the Spanish Flat service area known as "Berryessa Pines." The annexation was petitioned by property owners in order for the District to assume water and sewer service responsibilities from the prior service provider, the Berryessa Water Company. Water supplies for the approximate 32-acre subdivision, which was developed in 1959, were drawn from local water sources consisting of two wells and five springs. By the mid-1970s, water shortages occurred within the subdivision during summer months as demands outpaced available supplies. To abate further water shortages, a moratorium on water service connections was issued by the Napa County Department of Public Health. This moratorium restricted development within the planned 99-lot subdivision by limiting the number of permitted water service connections to 50, pending the development of an adequate water supply. A temporary transmission line was also constructed to obtain emergency water supplies from the nearby Rancho Monticello Resort. Upon its annexation and acquisition of existing facilities at Berryessa Pines, the District authorized an independent engineering report to evaluate needed capital improvements. An assessment district was later established to finance water and wastewater improvements for Berryessa Pines as recommend in the engineering report. Notable capital improvements included improvements to an existing filtration plant and an intake system to Lake Berryessa.

In 1997, SFWD authorized an outside consultant to perform an evaluation of its water treatment and storage facilities. The study was in response to an earlier notice by the California Department of Health Services for the District to make improvements to the water treatment plants serving the Spanish Flat and Berryessa Pines service areas. Notably, the notice stated that improvements were needed for both plants to comply with filtration and disinfection standards under California's Surface Water Treatment Rule. In addition to recommending the construction of new water treatment plants, the study recommended replacing an existing 12,000 gallon storage tank with a 100,000 storage tank and installing new liners for three storage tanks in the Spanish Flat service area.

SFWD is currently pursuing grant money from the State of California to help finance the construction of new water treatment plants for both of its service areas.³ Additional revenue needed to finance the construction of the new water treatment plants is expected to be generated from the establishment of assessment districts within each service area (subject to voter approval). Construction of new water treatment plants at the Spanish Flat and Berryessa Pines service areas is anticipated to cost approximately \$496,000 and \$1,000,000 respectively.

² The Spanish Flat Resort's potable water distribution system remains independent from SFWD.

³ In 2004, SFWD prepared an initial study and a mitigated negative declaration for the construction of a new water treatment plant for the Spanish Flat service area. A categorical exemption for the construction of a new water treatment plant for the Berryessa Pines service area was also issued by the District.

GOVERNANCE

SFWD was organized under the California Water District Law, Division 13 of the California Water Code. The District's governing body is comprised of an elected five-member board of directors who serve staggered four-year terms. In order to serve, a board member must be a landowner, legal representative, or a designated representative of land within the District. Elections are based on the landowner-voter system, which allows each landowner one vote for each dollar that his or her property is assessed (based on last assessment roll). In addition to electing a president, the board is required to appoint a secretary whose responsibilities include keeping records of all board proceedings. Services can be financed through water and sewer usage and standby charges, the sale of power to a public utility or agency, the lease or sale of surplus water, assessments, and general obligation and revenue bonds.

SFWD's board meetings are conducted on the second Thursday of every month at its administration office and are open to the public. Board members serve on a volunteer basis and are not compensated. Pursuant to the California Water District Law (Water Code 34000 et. seq.), the District is authorized to provide the following municipal services:

- The production, storage, and transmission of water for irrigation, domestic, industrial, and municipal purposes and/or any associated reclamation works (WC §35401)
- The acquisition, construction, and operation of facilities for the collection, treatment, and disposal of sewage, waste, and storm water (WC §35550)
- The construction, operation, and/or maintenance of facilities for the generation of hydroelectric power (WC §35570)

SFWD provides only the first two services listed above.

OPERATIONS

SFWD employs one full-time operator-in-training who oversees and operates the District's potable water and sewer systems. The operator-in-training is a resident of the District and works under the direction of two licensed operators. Both licensed operators are residents of the District and work as needed. The operator-in-training is on call 24 hours a day, seven days a week, to respond to reported emergencies. Customer inquiries, including billing and service request, are directed to the District's administration/field office. The office is located next to the Spanish Flat's sewer treatment facility. The District also employs a full-time maintenance employee and a part-time administrator. The administrator's responsibilities include acting as district secretary and interacting on behalf of the board with local government agencies.

ADOPTED BOUNDARIES

SFWD's adopted service area is comprised of four non-contiguous, unincorporated areas consisting of approximately 1,178 acres. The District's adopted sphere of influence includes all land located within its jurisdictional boundary. The District is under the land use authority of the County of Napa. Land located within the District's adopted sphere of influence is designated under the County's General Plan as "Agriculture, Watershed and Open Space" and "Rural Residential." Zoning for this area is comprised of five standards: "Agricultural Watershed," "Commercial Limited," "Commercial Neighborhood," "Marine Commercial," and "Residential Single: B-1." Minimum parcel sizes for these zoning standards range from 8,000 square feet (Residential Single) to 160 acres (Agricultural Watershed).

SFWD – Adopted Boundaries	
District Boundary:	1,178 acres *
Sphere of Influence Boundary:	1,325 acres *

* Figures are approximations calculated using information generated by LAFCO and the County of Napa's geographic information systems.

WATER SUPPLY

SFWD's water supply is drawn from Lake Berryessa.⁴ The District's right to draw water from Lake Berryessa is secured through a 1999 agreement with the Napa County Flood Control and Water Conservation District (NCFCWCD). NCFCWCD presently administers an agreement with the United States Department of the Interior, Bureau of Reclamation, for an annual water entitlement of 1,500 acre-feet from Lake Berryessa. In turn, NCFCWCD subcontracts this entitlement to several property owners in the Lake Berryessa area along with three special districts, including SFWD. As a subcontractor to NCFCWCD, the District is annually entitled to 200 acre-feet of water from Lake Berryessa through 2024. This entitlement serves the District's two service areas: Spanish Flat and Berryessa Pines.

SFWD – Available Water Supply (acre-feet)	
Solano Project:	200 (annual entitlement) *

⁴ Lake Berryessa was developed by the United States Department of the Interior, Bureau of Reclamation, as part of its Solano Project. The Solano Project originally intended to provide Napa, Yolo, and Solano Counties with a reliable source of water for agricultural and domestic uses. After concluding that the Berryessa Valley would be an ideal location for the creation of a water reservoir by damming Putah Creek, the Bureau of Reclamation approached all three counties about participating in a joint project. However, both Napa and Yolo decided against participating in the project, leaving Solano County as the sole participant. The Monticello Dam was completed in 1957, and the formation of Lake Berryessa was finished by 1964. Based on its participation, Solano County maintains the majority of water rights to Lake Berryessa. Lake Berryessa has an approximate storage capacity of 1.6 million acre -feet.

- * Pursuant to its agreement with NCFWCWD, the District may request an increase to its annual entitlement of up to 20 percent, or 40 acre-feet. This annual entitlement continues through 2024.

WATER DEMAND

Spanish Flat – Service Area:

In 2002, SFWD delivered approximately 32,400,000 gallons (99 acre-feet) of potable water to the Spanish Flat service area. This amount results in an approximate daily average of 88,767 gallons. The service area's maximum day water demand was approximately 179,000 gallons. The District currently provides water service to 46 service connections in the Spanish Flat service area. Of this amount, 31 connections are residential, while 15 connections are commercial (note: one commercial connection provides water service to the 48-space Spanish Flat Mobile Villa⁵, while three commercial connections provide water service to the Spanish Flat Resort).⁶

Spanish Flat Service Area – 2002 Water Demand	
Annual Water Demand:	32,400,000 gallons
Average Water Demand:	88,767 gallons
Maximum Day Water Demand:	179,000 gallons *
Water Connections:	46
Population Served:	871 **

- * Title 22 of the California Code of Regulations requires that sufficient water be available from the water sources and distribution reservoirs to adequately and dependably meet the requirements of all users under maximum demand conditions.
- ** Calculated in accordance with Title 22 of the California Code of Regulations §64412(a)(3). Estimate based on the total number of equivalent dwelling units (EDU) and multiplied by a service factor of 2.8. EDU assignments for the District include 31 for single-family residences, 11 for commercial establishments, 48 for the Spanish Flat Mobile Villa, and 221 for the Spanish Flat Resort.

Projected water demands for the Spanish Flat service area are not available.

⁵ The Spanish Flat Mobile Villa provides rental spaces for 48 trailer homes.

⁶ The Spanish Flat Resort is one of seven concessionary resorts under contract with the United States Department of the Interior, Bureau of Reclamation, to provide recreational and commercial services to the public at Lake Berryessa. Notably, the resort rents 180 recreational home spaces to seasonal residents. Recreational home tenants are allowed to live at the resort for up to 180 days a year (no more than 90 consecutive days). The resort is open year-round with peak services between May and September. The resort's daytime population during this period averages 2,000. Recreational home spaces are secured through one-year leases.

Berryessa Pines – Service Area:

In 2002, SFWD delivered approximately 10,800,000 gallons (33 acre-feet) of potable water to the Berryessa Pines' service area. This amount results in a daily average of 29,589 gallons. The service area's maximum day water demand was 97,000 gallons. The District currently provides water service to 73 service connections in the Berryessa Pines' service area. All 73 connections are located within the Berryessa Pines subdivision and serve single-family residences.

Berryessa Pines Service Area – 2002 Water Demand	
Annual Water Demand:	10,800,000 gallons
Average Water Demand:	29,589 gallons
Maximum Day Water Demand:	97,000 gallons *
Water Connections:	73
Population Served:	241 **

* Title 22 of the California Code of Regulations requires that sufficient water must be available from the water sources and distribution reservoirs to adequately meet the requirements off all users under maximum demand conditions.

** Calculated in accordance with Title 22 of the California Code of Regulations §64412(a)(2). Estimate based on the total number of service connections and multiplied by a service factor of 3.3.

Projected water demands for the Berryessa Pines service area are not available.

WATER TREATMENT FACILITIESSpanish Flat Water Treatment Facility:

SFWD provides treatment of raw water generated from Lake Berryessa for the Spanish Flat service area at the Spanish Flat Water Treatment Plant (WTP). The Spanish Flat WTP filters and disinfects raw water generated from an intake system at Lake Berryessa before entering the distribution system. The treatment process begins as raw water is captured by the intake system, which is powered by two submersible pumps, and conveyed to the Spanish Flat WTP. Polymer (coagulant) and chlorine (disinfectant) are added and mixed as the raw water is cycled through a pressurized sand filter. Solids are separated and suspended from the treatment process in the filter tank and ultimately discharged into an adjacent sludge pond. After completing its detention time in the filter, the water is placed inside a clearwell tank. The clearwell tank completes the disinfection process by allowing the water to complete its necessary contact time with the chlorine. Finished water remains in the clearwell tank until storage levels within the distribution system require recharge. The Spanish Flat WTP has a rated treatment capacity of 152 gallons per minute. However, the District estimates that the actual treatment capacity of the Spanish Flat WTP is approximately 100 gallons per minute, resulting in a daily treatment capacity of 144,000 gallons.

Spanish Flat Water Treatment Facility	
Water Source:	Solano Project (Lake Berryessa)
Treatment Capacity:	100 gallons per minute; or 144,000 gallons per day
Clearwell Tank Capacity:	5,234 gallons *

* Estimate includes storage capacity of transmission line.

Berryessa Pines Water Treatment Facility:

SFWD provides treatment of raw water generated from Lake Berryessa for the Berryessa Pines service area at the Berryessa Pines Water Treatment Plant (WTP). The Berryessa Pines WTP filters and disinfects raw water generated from an intake system at Lake Berryessa before entering the distribution system. The treatment process begins as raw water is captured and conveyed by an intake system to the Berryessa WTP. Raw water is injected with polymer (coagulant) and chlorine (disinfectant) before being cycled through a pressurized sand filter. Solids are separated and suspended from the treatment process in the filter tank and ultimately discharged into an adjacent sludge pond. After completing its detention time in the filter, the water is placed inside a clearwell tank. The clearwell tank completes the disinfection process by allowing the water to complete its necessary contact time with the chlorine. Finished water remains in the clearwell tank until storage levels within the distribution system require recharge. The Berryessa Pines WTP typically runs at 100 gallons per minute during the summer months to meet system demands. Actual rated treatment capacity is not available.

Berryessa Pines Water Treatment Facility	
Water Source:	Solano Project (Lake Berryessa)
Treatment Capacity:	100 gallons per minute; or 144,000 gallons per day
Clearwell Tank Capacity:	1,778 gallons

DISTRIBUTION SYSTEM AND STORAGE FACILITIES

Spanish Flat – Water Distribution System:

The Spanish Flat's water distribution system receives and distributes treated water generated from the Spanish Flat WTP. The distribution system includes a network of six and eight inch water lines. The Spanish Flat service area includes the Spanish Flat Woodlands subdivision, Spanish Flat Village Center, Monticello Public Cemetery, Spanish Flat Mobile Villa, and the Spanish Flat Resort. The distribution system overlays three water pressure zones and is served (recharge and system pressure) by six storage tanks. Due to the service area's topography, a pump station is required to lift potable water from the Spanish Flat WTP's clearwell tank into the distribution system.

The distribution system responds to water levels with the system's initial 24,000 gallon storage tank (Storage Tank 1). When water levels within Storage Tank 1 fall below a designated operating level, potable water is discharged from the clearwell tank into the distribution system. As water enters the distribution system, storage levels within five of the six storage tanks are recharged. A 12,000 gallon storage tank is located within the third pressure zone and requires the use of a booster pump station in order to be recharged. This storage tank currently provides water service to 10 residences located outside the Spanish Flat Woodlands subdivision. All six storage tanks work in conjunction with one another to maintain adequate pressure in the system by using gravity.

Spanish Flat Service Area - Distribution Storage Capacity	
Storage Tank 1:	24,000 gallons
Storage Tank 2:	24,000 gallons
Storage Tank 3:	24,000 gallons
Storage Tank 4:	12,000 gallons
Storage Tank 5	24,000 gallons
Storage Tank 6:	24,000 gallons
TOTAL	132,000 gallons*

* Total does not include storage capacity at the Spanish Flat WTP's clearwell tank.

Berryessa Pines – Water Distribution System:

The Berryessa Pines' water distribution system receives and distributes treated water generated from the Berryessa Pines WTP. The distribution system includes a network of six, eight, ten, and twelve inch water lines. The Berryessa Pines service area includes the Berryessa Pines subdivision. The distribution system overlays one water pressure zone and is served (recharge and system pressure) by a 100,000 storage tank. Due to the service area's topography, a pump station is required to lift treated water stored in the Berryessa Pines WTP's clearwell tank into the distribution system.

The distribution system responds to water levels in the system's 100,000 gallon storage tank. When storage levels within the tank fall below a designated operating level, treated water is discharged from the clearwell tank into the distribution system. As water enters the distribution system, water level inside the storage tank are recharged. The storage tank is located above the distribution system and uses gravity to maintain pressure in the system.

Berryessa Pines Service Area – Distribution Storage Capacity	
Storage Tank 1:	100,000 gallons
TOTAL	100,000 gallons*

* Total does not include storage capacity at the Berryessa Pines WTP's clearwell tank.

RATE SCHEDULE

SFWD customers are charged two monthly fees for water service: a usage charge and an availability charge. Rates for these charges are divided between residential and commercial customers as well as inside and outside customers.⁷ Residential and commercial customers inside the District are charged an identical usage rate based on the volume of water delivered according to a tiered rate schedule, which is measured in units of 1,000 gallons. Residential and commercial customers outside the District are charged a fixed usage rate based on the amount of water delivered, which is also measured in units of 1,000 gallons. All customers are charged a fixed availability fee based on their residential or commercial designation. The District also collects a connection fee for water service in the amount of \$4,000.

SFWD – Rate Schedule	
Inside Usage Fee Residential and Commercial:	\$1.38 for 0 to 6,000 gallons \$1.65 for 6,001 to 12,000 gallons \$1.93 for 12,001 to 18,000 gallons \$2.20 for 18,001 and more gallons
Outside Usage Fee Residential and Commercial:	\$2.20 per 1,000 gallons
Inside Residential Availability Fee Residential: Commercial:	\$25.30 \$55.00
Outside Availability Fee: Residential: Commercial:	\$40.15 \$70.40
Water Connection Fee:	\$4,000

FINANCIAL

SFWD has an approved operating budget for 2002-2003 of \$177,307. This amount includes water and sewer operations. Primary expenses include maintenance and operation costs, payroll, and utilities. The District's anticipated revenue for 2002-2003 is \$207,917. Revenue sources include usage and availability charges as well as an energy surcharge.⁸ The District's reserve balance as of August 2002 was \$52,654.

⁷ SFWD does not provide water service outside its jurisdictional boundary. The District does sell water to construction firms at its "outside" customer rate.

⁸ The energy surcharge is applied to each customer, and presently equals 15 percent of each customer's monthly water bill. This surcharge is intended to recover pumping costs and is reviewed by the Board on a quarterly basis.

WRITTEN DETERMINATIONS

In anticipation of reviewing and updating the Spanish Flat Water District's sphere of influence, and based on the above-mentioned information, the following written determinations are intended to fulfill the requirements of California Government Code §56430. When warranted, some determinations include supplemental information listed in italics to provide context to the underlying service factor. A review of the District's sphere of influence will be included as part of a future study.

Infrastructure Needs or Deficiencies:

1. Through its contractual agreement with the Napa County Flood Control and Water Conservation District, the Spanish Flat Water District imports an adequate supply of water to meet existing system demands for its two service areas under normal conditions. It is anticipated that this supply is sufficient to meet future system demands under normal conditions within the timeframe of this study.
2. The Spanish Flat Water District should continue to pursue opportunities to increase and enhance its available water supply by developing a water conservation program. A water conservation program, which should encompass a variety of measures to remind constituents of the importance of conservation, will reduce system demands and help to ensure an adequate water supply during periods of below normal and dry year conditions.
3. The ability of the Spanish Flat Water District to address infrastructure needs or deficiencies in a timely manner is constrained by its financial resources relative to the cost of service.
4. The Spanish Flat Water District's maximum day water demand is an important component in evaluating its current and future service capacities.

Title 22 of the California Code of Regulations requires all public water service providers ensure sufficient water be available from their supply, treatment, and storage facilities to adequately and dependably meet the requirements of all users under maximum demand conditions before permitting additional connections.

5. The Spanish Flat Water District requires improvements to its water treatment plant to independently meet maximum day water demands for its Spanish Flat service area. This results in a increased dependence on stored reserves to help meet maximum day demands that are equal or exceed the capacity of its water treatment plant.

Spanish Flat Water District's maximum day water demand for its Spanish Flat service area in 2002 was 179,000 gallons, while its treatment plant's daily capacity is 144,000 gallons.

6. The Spanish Flat Water District has adequate water treatment capacity to independently meet existing maximum day water demands for its Berryessa Pines service area. It is anticipated that this capacity is sufficient to meet future maximum day water demands within the timeframe of this study.

Spanish Flat Water District's maximum day water demand for its Berryessa Pines service area in 2002 was 97,000 gallons, while its treatment plant's daily capacity is 144,000 gallons.

7. The Spanish Flat Water District requires improvements to its treated water storage facilities to independently meet maximum day water demands for its Spanish Flat service area. Additional storage capacity is needed to help ensure adequate reserves are available during an emergency or interruption in service.

Spanish Flat Water District's maximum day water demand for its Spanish Flat service area in 2002 was 179,000 gallons, while its treated water storage capacity is 132,000 gallons.

8. The Spanish Flat Water District requires improvements to its treated water storage facilities to independently meet maximum day water demands for its Berryessa Pines service area. Additional storage capacity is needed to help ensure adequate reserves are available during an emergency or interruption in service.

Spanish Flat Water District's maximum day water demand for its Berryessa Pines service area in 2002 was 97,000 gallons, while its treated water storage capacity is 100,000 gallons.

9. Central components of the Spanish Flat Water District's water system, including its treatment plant and storage tanks, have been in operation since the 1960s. As a result, the water system requires a higher level of maintenance, resulting in additional costs with respect to repairs and staff time.
10. The Spanish Flat Water District requires a comprehensive facilities plan regarding its water service operations. This plan should evaluate existing water system facilities, project future water demands, and offer recommendations with respect to immediate and long-term capital improvements that are consistent with the service needs of the community.

Growth and Population Projections:

1. The Spanish Flat Water District is under the land use authority of the County of Napa. Within its jurisdictional boundary, there are several zoning standards that allow for additional commercial and residential development to occur within the District. These zoning standards, which reflect the original development plans for the community, currently accommodate two partially developed residential subdivisions, several low density commercial sites, and a number of vacant

parcels. Based on past market demand and present land use policies, little or no development is expected to occur within the District within the timeframe of this study.

2. In 2004, Napa County issued a draft update to its General Plan Housing Element. The draft update identifies potential development sites for affordable housing projects in unincorporated areas of the County, including parcels located within the jurisdictional boundary of the Spanish Flat Water District. If realized, the affordable housing projects identified in the draft update for the Spanish Flat area would result in a significant increase in service population for the District.

The draft update anticipates that the Spanish Flat area could accommodate up to 110 new residential units, ranging from manufactured single-family residences to apartment complexes. To facilitate these development projects, the draft update proposes that the Board of Supervisors adopt a “Affordable Housing Overlay Zone” for the affected parcels.

3. Land located outside of the Spanish Flat Water District’s jurisdictional boundary is designated under the County of Napa General Plan as “Agriculture, Watershed, Open Space.” This land use designation discourages the Commission from approving annexation proposals to the District based on its policy to direct the extension of municipal services away from land designated for agriculture unless it is in response to a health or public safety concern.
4. The calculation formula codified in Title 22 of the California Code of Regulations §64412(a)(3) is an appropriate method in estimating the total population served by Spanish Flat Water District’s water service system within its Spanish Flat service area. The population served by the District’s water system based on this calculation method is 871.
5. The calculation formula codified in Title 22 of the California Code of Regulations §64412(a)(2) is an appropriate method in estimating the total population served by Spanish Flat Water District’s water service system within its Berryessa Pines service area. The population served by the District’s water system based on this calculation method is 241.

Financing Constraints and Opportunities:

1. The Spanish Flat Water District’s water supply agreement with the Napa County Flood Control and Water Conservation District provides the District with a reliable source of water at a cost below market value. This agreement enables the District to establish and maintain a revenue stream based on its water supply that exceeds its cost of purchase, which helps to finance other operational and maintenance services.

The Spanish Flat Water District currently pays the Napa County Flood Control and Water Conservation District \$20 per acre foot (325,900 gallons), while charging residential customers a tiered usage rate starting at \$1.38 per 1,000 gallons. This results in a cost-to-revenue of \$20 to \$707 for each acre-foot (note: this does not take into account pumping, treatment, storage, and distribution costs).

2. Approximately one-fourth of the Spanish Flat Water District's annual revenue is generated from water service charges to the Spanish Flat Resort, which is under contract with the federal government to provide visitor services at Lake Berryessa. The federal government is presently evaluating redevelopment opportunities at Lake Berryessa, which may result in significant operating changes for the Spanish Flat Resort at the conclusion of its contract in 2008. As a result, pending a final determination by the federal government concerning future visitor services at Lake Berryessa, the District is subject to a significant loss in annual revenues within the timeframe of this study.
3. The Spanish Flat Water District's connection fee for water service is low relative to the connection fee adopted by other public water service providers in Napa County. The District should consider increasing its connection fee to help cover the cost of capital improvements needed to serve existing and future development within its jurisdictional boundary.
4. The Spanish Flat Water District's connection fee serves as a buy-in charge for new development within its jurisdictional boundary. This is an appropriate and equitable approach to ensuring that new development pays a fair share of past and future expense relating to the development and maintenance of the water system.
5. The ability of the Spanish Flat Water District to generate sufficient revenues has been hampered by unfulfilled development plans within its jurisdictional boundary. As a result, service costs for the District is spread out among fewer ratepayers, resulting in under funded operations and dependency on outside assistance to finance capital improvements.
6. The Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 provides grant funding to public agencies to develop and enhance local water resources and related infrastructure and facilities. This program may provide the Spanish Flat Water District an opportunity to secure financing for needed capital improvement projects, including expanding its treatment plant and storage capacities. The District should contact the California Department of Water Resources to begin exploring funding opportunities under this program.

Cost Avoidance Opportunities:

1. The Spanish Flat Water District would benefit from a regional study evaluating whether cost avoidance opportunities are available with respect to joint agency practices with other special districts serving the Lake Berryessa area. Notably, a regional study may identify opportunities for the District to realize savings relating to infrastructure and equipment purchases, engineering services, and administrative costs.

Opportunities for Rate Restructuring:

1. The Spanish Flat Water District's water rates are among the lowest of all public water service providers in Napa County. To enhance its revenue stream, the District should consider increasing its water rates to be more reflective of the actual costs of providing water service along with capturing reserve funding.
2. The Spanish Flat Water District currently operates with limited cash reserves to help finance special projects or emergency improvements. This increases the District's dependency on outside financing to fund capital improvements or sustain operations in the event of an emergency. It is imperative that the District build-up its cash reserves to maintain the solvency of its water service operations.

As of August 2002, the Spanish Flat Water District maintained a cash reserve balance of \$52,654.

3. It is appropriate for the Spanish Flat Water District to amend its water rates to be more reflective of the actual costs of providing water service. An increase in rates would provide the District with additional revenue needed to finance capital improvements and help to build up its cash reserves.
4. The Spanish Flat Water District's tiered water usage rate schedule assists the District in recovering costs of providing service to high-use customers, while encouraging water conservation by providing a financial incentive to conserve.

Opportunities for Shared Facilities:

1. The Spanish Flat Water District should explore opportunities to share costs with the Lake Berryessa Resort Improvement District and the Napa-Berryessa Resort Improvement District based on their proximity and similar service area characteristics.

Government Structure Options:

1. The Spanish Flat Water District is the only public agency providing water service within its jurisdictional boundary. There are two other public agencies empowered to provide water service whose jurisdictions overlap that of the District: the Napa County Flood Control and Water Conservation District and Napa County Resource Conservation District. Both of these agencies have elected not to offer water service, and have expressed no intentions of doing so in the foreseeable future.
2. The Spanish Flat Water District has been successful in achieving its original service objective to provide water and sewer service to the Spanish Flat area. However, due to its financial constraints, it is unclear whether the District under its present organization can continue to effectively meet the service needs of the community.
3. Preliminary analysis suggests that there may be advantages to pursuing a change in organization for the Spanish Flat Water District, and that consolidation with the Lake Berryessa Resort Improvement District and the Napa-Berryessa Resort Improvement District may be appropriate. Notably, reorganization of these districts may establish economies of scale necessary to enhance operational and service levels within their respective jurisdictional boundaries and help to formalize service provision in the Lake Berryessa area.
4. Pursuant to California Government Code §56378, LAFCO should conduct a governance study to evaluate the merits of reorganizing the Spanish Flat Water District, Lake Berryessa Resort Improvement District, and the Napa-Berryessa Resort Improvement District. This study should be completed prior to the next scheduled service review of the District.

Evaluation of Management Efficiencies:

1. The Spanish Flat Water District provides an annual summary of past and projected revenues and expenditures relating to its water service operations as part of its annual budget. The budget is adopted following a publicly noticed board meeting in which members of the public are allowed to comment and offer suggestions with respect to expenditures relating to water service. In addition to enhancing the accountability of elected representatives, the budget process provides a clear directive towards staff with respect to prioritizing district resources.

Local Accountability and Governance:

1. The Spanish Flat Water District's board meetings are conducted once a month and are open to the public. Public inquiries involving water service operations can be addressed to the Board at this time. Regularly scheduled board meetings provide an opportunity for District constituents to ask questions of their elected representatives, while helping to ensure that service information is being effectively communicated to the public.
2. The Spanish Flat Water District's governing body is comprised of five directors serving elected four-year terms. The ability of the District to continually maintain a full board roster has helped establish continuity with respect to policies and procedures along with fostering local accountability within the community.
3. The Spanish Flat Water District makes reasonable efforts to maintain public dialogue with its constituents regarding its water service operations. These efforts facilitate local accountability and contribute towards public involvement in local governance.
4. The Spanish Flat Water District provides water service to two distinct service areas, Spanish Flat and Berryessa Pines. The District should continue to pursue opportunities to engage the public within both communities with respect to identifying and meeting their respective service needs.
5. The Spanish Flat Water District should closely monitor and participate in the review of the draft update to Napa County's General Plan Housing Element. This update, which may facilitate the creation of up to 110 new residential units within the District's jurisdictional boundary, could have significant impacts on its service operations and may amend the service needs of the community.
6. The Spanish Flat Water District should closely monitor the plans of the United States Department of the Interior, Bureau of Reclamation, with respect to long-term visitor uses at Lake Berryessa. This will help prepare the District for possible operational changes at the Spanish Flat Resort, which may require the development of an alternative service plan to account for a diminished revenue stream.
7. The Spanish Flat Water District's water service operations are maintained and managed by a responsive and courteous staff. These characteristics enhance accountability and cultivate desirable working relationships with members of the public as well as other agencies.